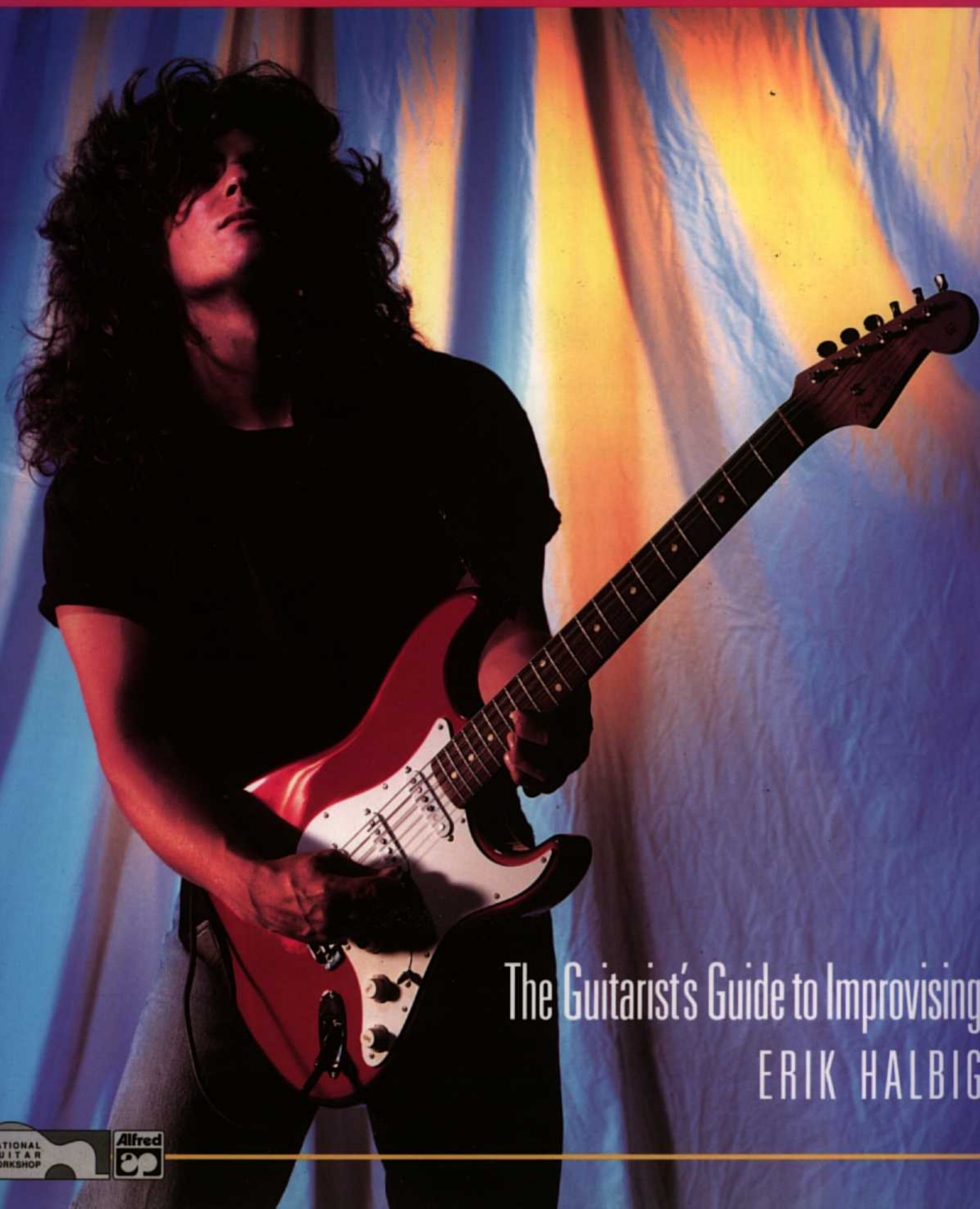


INTRODUCING

A NATIONAL GUITAR WORKSHOP PUBLICATION

# The Pentatonic Scales



The Guitarist's Guide to Improvising  
ERIK HALBIG

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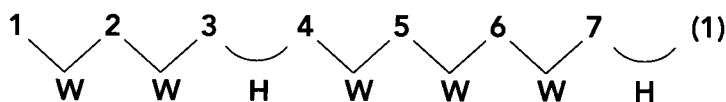
# PENTATONIC THEORY

Knowing a little about the theoretical concepts behind the pentatonic scales will help you use this book. More importantly, it will give you the freedom you need to do some really burning solos with a sense of security.

## THE MAJOR SCALE

The pentatonic scales are five note scales (penta = 5, tonic = tones) that are derived from the major scale, which has seven notes. The organization of pitches in the major scale is best described by using whole steps and half steps. A whole step, which is a major second interval, is equivalent to the distance between C and D, or any two notes that are two frets apart on the guitar. A half step, which is a minor second, is the distance between C and D<sup>b</sup>, or any two notes that are one fret apart.

In the major scale, there are whole steps between the first and second, second and third, fourth and fifth, fifth and sixth, and sixth and seventh scale tones. There are half steps between the third and fourth, and seventh and root. It is simple to refer to these scale degrees with their numbers:



✓ and W = whole step  
— and H = half step



PHOTO: COURTESY OF REPRISE RECORDS

Jimi Hendrix.  
songs like Hendrix's  
"Hey Joe" show what  
a powerful vehicle the  
minor pentatonic  
scale can be for  
improvization.

## THE MINOR PENTATONIC SCALE

The minor pentatonic scale has a similar organization of pitches, but 3 and 7 are lowered one half step and there is no 2 or 6.



∨ and WH = A whole step plus a half step

### EXAMPLE 1

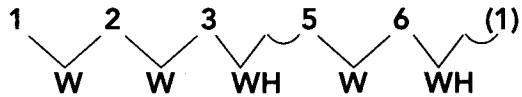
Let's compare the C Major scale to the C Minor Pentatonic scale.

### EXAMPLE 2

Here is the A Major scale compared to the A Minor Pentatonic scale.

## THE MAJOR PENTATONIC SCALE

The major pentatonic has a similar organization of pitches to the major scale. As a matter of fact, they are exactly the same except the major pentatonic scale is missing 4 and 7.



### EXAMPLE 3

Here is a comparison of the C Major scale to the C Major Pentatonic scale.

T  
A  
B

3 5 7 3 5 7 4 5 3 5 2 5 2 5

### EXAMPLE 4

Let's look at the A Major scale compared to the A Minor Pentatonic scale.

T  
A  
B

5 7 9 5 7 9 6 7 5 7 4 7 4 7

# THE MINOR PENTATONIC SCALE

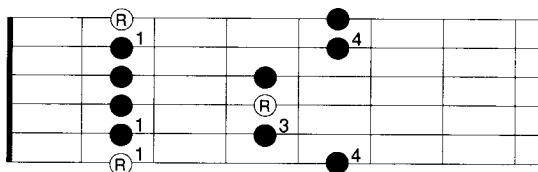
## THE FIVE MINOR PENTATONIC PATTERNS

The minor pentatonic scale has five notes in an octave:

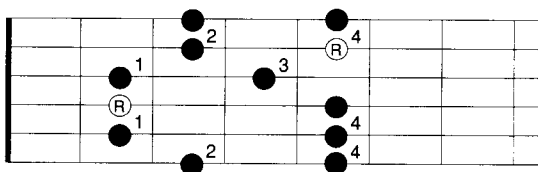
1    $\flat 3$    4   5    $\flat 7$

There are five basic patterns that are commonly used for playing the minor pentatonic scale.

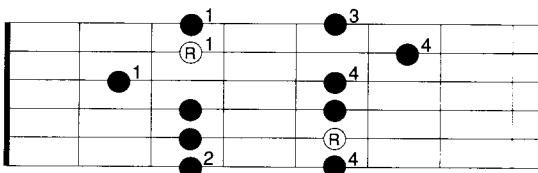
Pattern #1



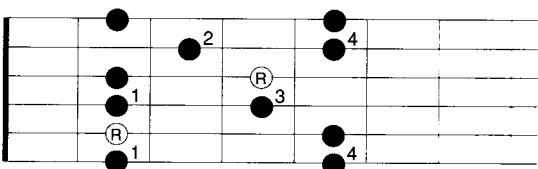
Pattern #2



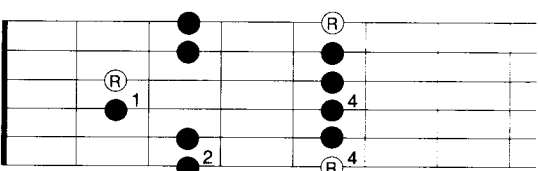
Pattern #3



Pattern #4



Pattern #5



The fingerings shown should be used because they will help all the fingers develop equally. Obviously, if you don't use the weaker fingers they will not get any stronger. It is definitely possible to make your fourth finger as strong and independent as your first and second. So take that fourth finger off the bench and put it in the ball game. You will be making stretches you never thought you could make before.

After you are able to play these patterns, you should commit them to memory. Imagine being at a band rehearsal or audition and the leader points at you to take a solo. If you have forgotten the patterns and don't know what to play, you won't leave a very good impression.

## PUTTING THE PATTERNS IN A KEY

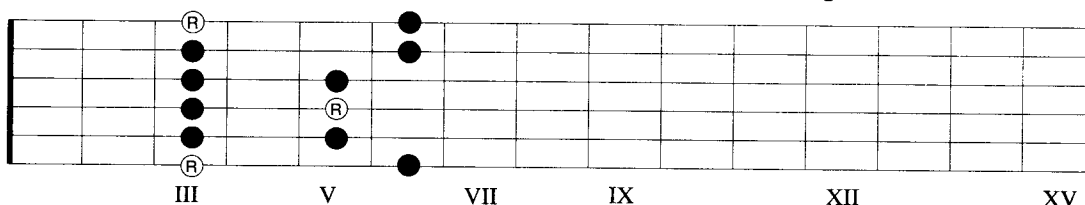
As you are memorizing the patterns, it would be wise to memorize where the root notes lie in the patterns.

The root notes identify the key center in which you are playing. This is important because you want to be able to use these patterns in any key. Examples 5 through 7 show how to put each of the five patterns into the key of G. This thought process can be used for any key.

### Pattern #1 in G

#### EXAMPLE 5

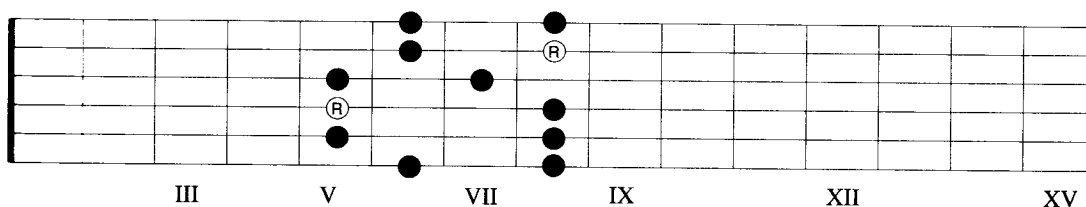
If you are going to solo on a song in the key of G and you want to use Pattern #1, you will play in third position, starting with your first finger on the third fret. This is because Pattern #1 always has the root on the sixth string, and the note G, your root note, is on the third fret of that string.



### Pattern #2 in G

#### EXAMPLE 6

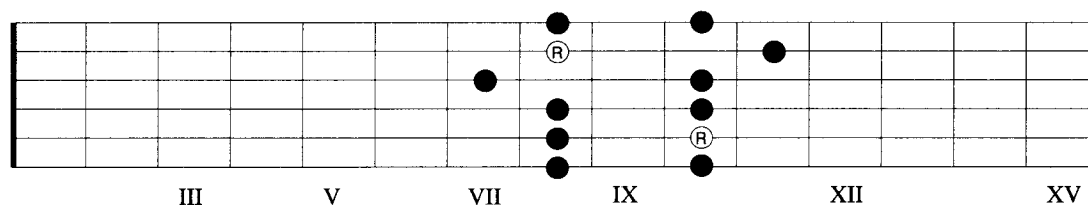
To use Pattern #2 in the key of G, you would play in fifth position, starting with the second finger on the sixth fret, because Pattern #2 always has the root on the fourth string, and your first finger plays the root note (G) on the fifth fret of that string.



### Pattern #3 in G

### EXAMPLE 7

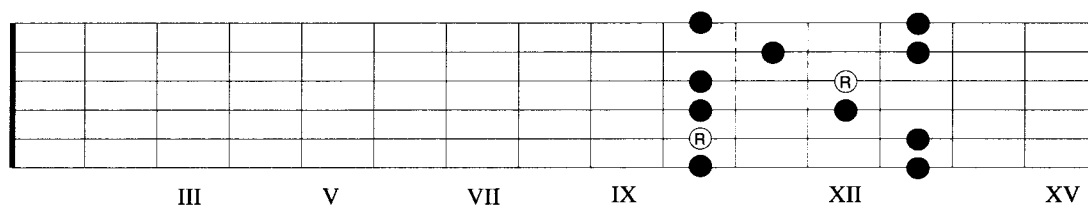
Pattern #3 in the key of G would start with the second finger on the eighth fret, or seventh position, because Pattern #3 always has the root on the fifth string, and your fourth finger plays the root note (G) on the tenth fret of that string.



### Pattern #4 in G

### EXAMPLE 8

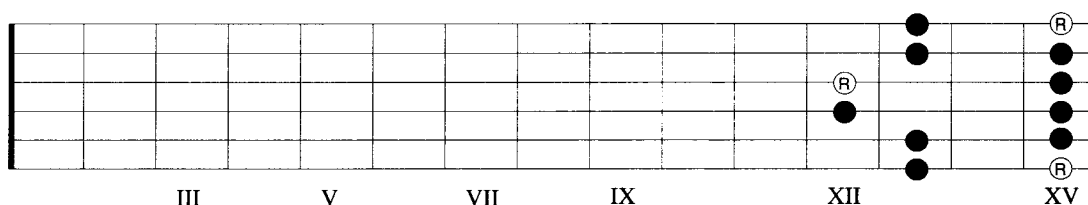
To play in the key of G with Pattern #4, you would start with the first finger on the tenth fret, or in the tenth position. Pattern #4 always has the root on the fifth string, and your first finger plays the root note (G) on the tenth fret of that string.



### Pattern #5 in G

### EXAMPLE 9

Pattern #5 would start in twelfth position with the second finger on the thirteenth fret to play in the key of G. The root is always on the sixth string in Pattern #5, and the fourth finger plays the root note (G) on the fifteenth fret.



When playing through these patterns, be sure to observe where all of the root notes appear.



## LEARNING ALL THE KEYS

The next step is to practice the patterns in other keys. Try to pick a key and play through all five patterns in that key. Begin in the lowest possible position and move up the neck, as we did in the key of G in the "Putting the Patterns in a Key" section, Exercises 5 through 9. The table below shows how the minor pentatonic scale can be started in any given key in one of the first three positions. This means that you may not always be starting with Pattern #1. For instance, you may have to start with Pattern #4. Then you would play Pattern #5 and then #1, etc.

If you are an electric player, you should take advantage of the extra frets you have above the twelfth fret. Notice that when you arrive at the twelfth fret, everything starts over again. For example, if you were to begin playing in the key of B with Pattern #4 at the second fret, and then played through each pattern in succession up the neck, by the time you got back to Pattern #4, you would be at the fourteenth fret, or twelve frets higher. You could continue this upward from the fourteenth fret until you ran out of frets.

Practice each of these keys:

Key	Starting Pattern	Starting Fret	Key	Starting Pattern	Starting Fret
G	Pattern #1	3rd Fret	C/D	Pattern #3	2nd Fret
D	Pattern #3	3rd Fret	A <sup>b</sup>	Pattern #5	2nd Fret
A	Pattern #5	3rd Fret	E <sup>b</sup>	Pattern #2	1st Fret
E	Pattern #2	2nd Fret	B <sup>b</sup>	Pattern #4	1st Fret
B	Pattern #4	2nd Fret	F	Pattern #1	1st Fret
F/G <sup>b</sup>	Pattern #1	2nd Fret	C	Pattern #4	3rd Fret

## VISUALIZATION

You should not only play the patterns, but also be able to visualize yourself playing them on the guitar in your mind's eye. Focus on two or three patterns a week. This involves making a mental picture of all the patterns in any given key. The purpose of this is to give you greater freedom in improvisational settings. You cannot reach your full creative potential if you have to struggle to remember the "correct" notes to play.

## LEARNING SCALE DEGREES

Try to recite the names and scale degrees of the notes while playing the scale. This will help you learn the fretboard better. At the same time, it will improve the shape of your solos because you will be able to identify where the different intervals are in the patterns. This skill is vitally important for targeting certain notes as you improvise. For instance, take Pattern #1 in the

key of G. Play each note slowly, reciting the name and scale degree of each note (G-1, B<sup>b</sup>-3, C-4, D-5, F-<sup>b</sup>7). Do this with all of the patterns in all of the keys.

## IMPROVISATION

The next step is a big one. This is where you actually make these un-musical scales sound like music. It's actually a lot easier than it seems. Begin with a simple chord progression, such as those in Examples 10 and 11. These progressions are on the tape that is available for this book. If you don't have the tape, record yourself playing these progressions on a tape recorder or have a friend play them.

First play straight up and down through the G Minor Pentatonic scale over each progression. This will not sound very musical, but you will be able to hear how the notes work over the chords. Next, try varying the order of the notes and rhythms that you play.

### EXAMPLE 10



### EXAMPLE 11

Example 11 shows three staves of musical notation, each with four measures of diagonal lines representing scale runs over different chord progressions.

Staff 1: G7, C7, G7, G7

Staff 2: C7, C7, G7, G7

Staff 3: D7, C7, G7, D7

## MOTIVES

Using motives will help you develop solos. A motive is a short, catchy musical idea. Sometimes the simpler an idea is, the more it will be remembered. This holds true not only for soloing but for songwriting, as well. Try thinking of three or four note musical motives. Here is an example that uses motives.

### EXAMPLE 12

First staff: G min, B $\flat$ , C

Second staff: T, A, B

Tablature for the first staff: 3 5 3 3 | 5 | 3 6 3 3 6 | (6) (5) 5 3 5 3 3 | 5 5 3 5 | 3 5 3 5 5 3 5

Second staff: G min, G min, B $\flat$

Third staff: T, A, B

Tablature for the second staff: 3 6 3 | 3 (3) 5 3 3 | 5 3 5 3 6 3 5 5 | 3 5 3 5 3 1 3

Third staff: S, S, S

Fourth staff: T, A, B

Tablature for the third staff: 5-7 6 7 6 7-5 3 5 3 3 | 5 3 5-3 1 3 1 3 1 3

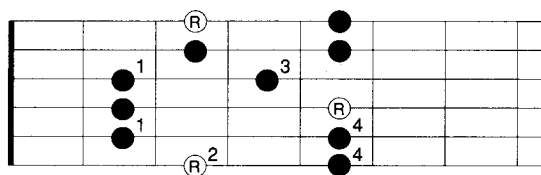
# THE MAJOR PENTATONIC SCALE

## THE FIVE MAJOR PENTATONIC PATTERNS

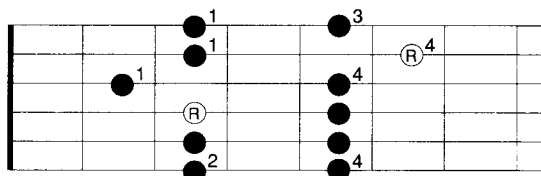
Like its minor counterpart, the major pentatonic scale consists of five notes in an octave:

1      2      3      5      6

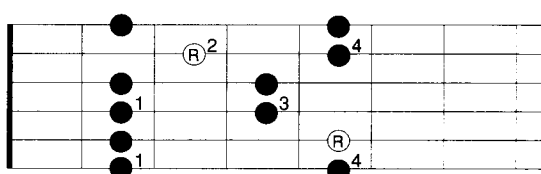
Pattern #1



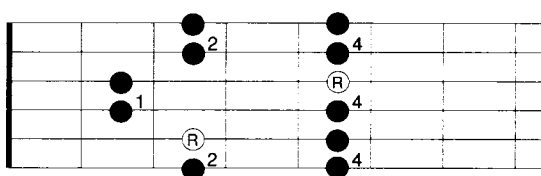
Pattern #2



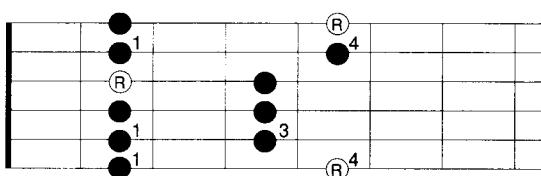
Pattern #3



Pattern #4



Pattern #5



Practice putting these patterns in a key, as we did in Examples 5 through 9 with the minor pentatonic patterns.

## RELATIVE PENTATONICS

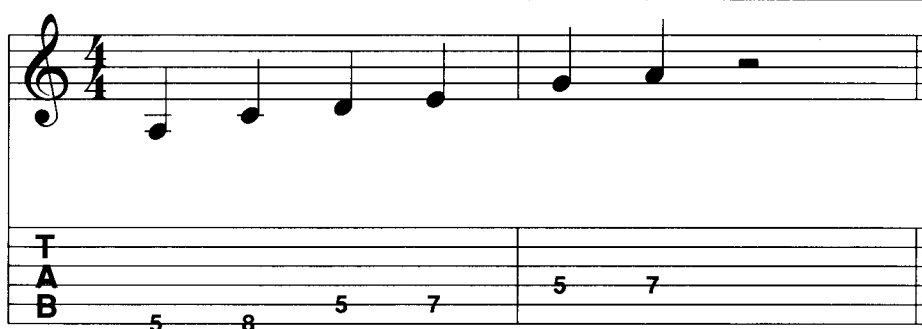
Every major pentatonic scale has a relative minor pentatonic scale. This means that the two scales share the same key signature and notes but have different roots. The way you phrase and resolve the notes of the scale will also dictate whether it is major or minor. There are strong notes, such as the root, that you can begin and/or end with that will help define the major or minor tonality.

For example, you can see that the C Major Pentatonic scale in Example 13 (C, D, E, G, A), has the same notes as the A Minor Pentatonic scale in Example 14 (A, C, D, E, G), but in a different order.

### EXAMPLE 13



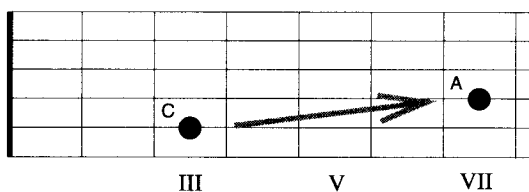
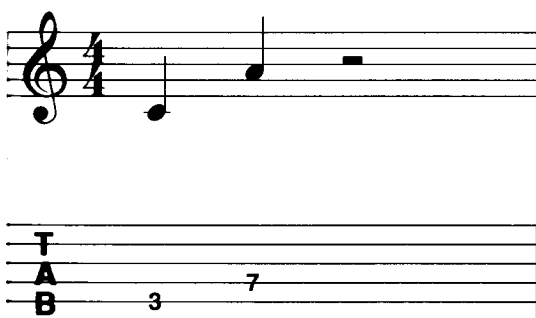
### EXAMPLE 14



To find the relative minor pentatonic of a major pentatonic scale, think up four frets on the next higher string (except from the third to second strings, where you will need to think up five frets).

### EXAMPLE 15

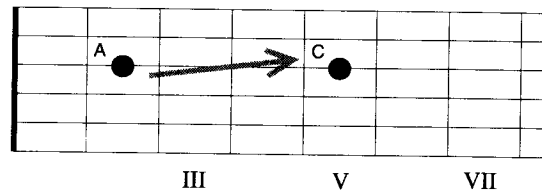
The relative minor pentatonic of C is A.



To find the relative major pentatonic of a minor pentatonic scale, think up three frets on the same string.

## EXAMPLE 16

The relative major pentatonic of A is C.



So the patterns we use for major pentatonic are the same as the minor pentatonic but with the root notes in different places.

## LEARNING ALL THE KEYS

Next, learn all 12 keys as you did with the minor, taking a couple of keys a week and really making them your own.

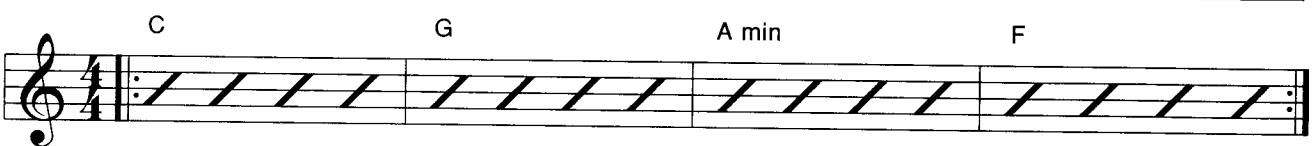
## IMPROVISATION

It is time to put the major pentatonic scale to work in a musical situation. Practice improvising over the chord progressions in Examples 17 and 18.

## EXAMPLE 17



## EXAMPLE 18

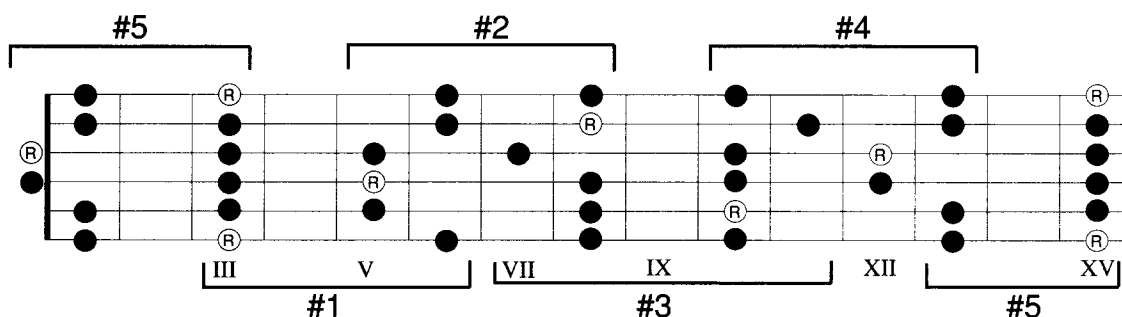


Begin by playing the patterns one at a time over each progression. Try to spend extra time isolating the patterns that you don't know as well. You can practice these patterns for years, but you don't really know them until you can use them in musical situations. The information you know means nothing until you use it in context.

Being truly creative with the pentatonic scales begins with expanding the range of your pattern playing horizontally along the neck.

## THE ENTIRE MINOR PENTATONIC SYSTEM

The five basic minor pentatonic patterns fit together like a jigsaw puzzle. It is important to be able to tie them all together.

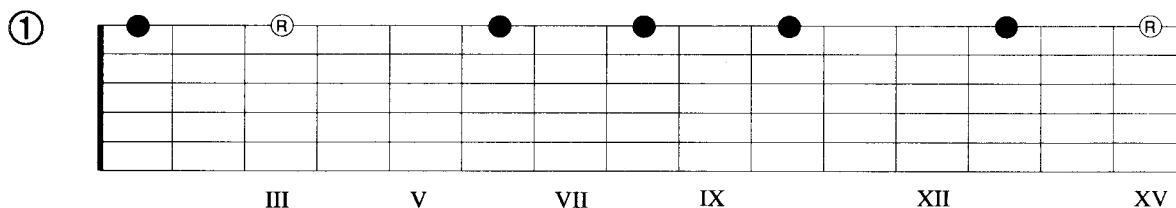


## THE HORIZONTAL APPROACH TO THE MINOR PENTATONIC

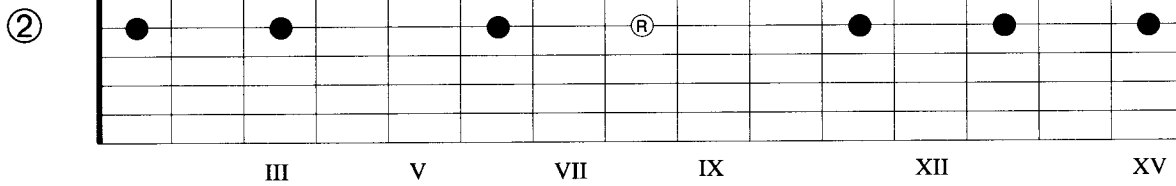
So that you are not confined to playing just the patterns, a strictly vertical approach, experiment with playing the scale up one string, a horizontal approach. Knowing the scale like this allows you to expand your range up or down the neck which will result in longer, more flowing lines in your solo playing.

### THE G MINOR PENTATONIC SCALE ON SINGLE STRINGS.

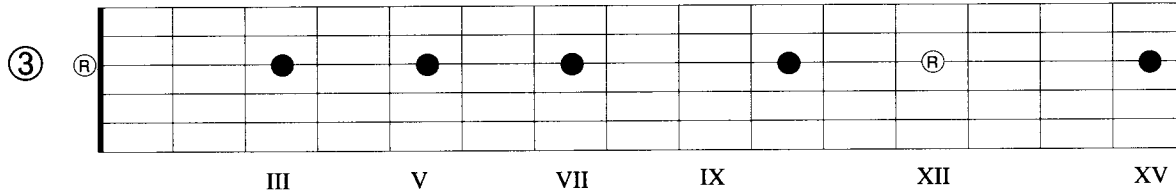
#### EXAMPLE 19



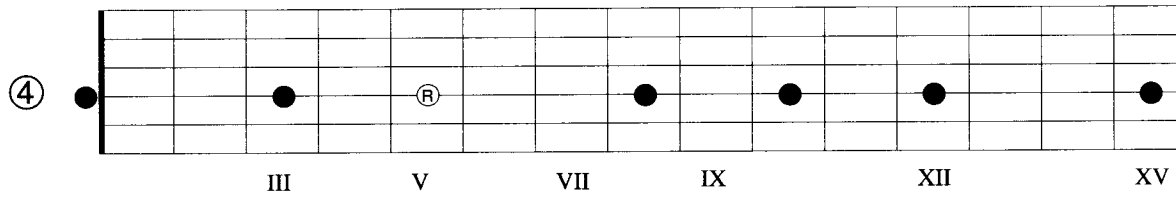
# EXAMPLE 20



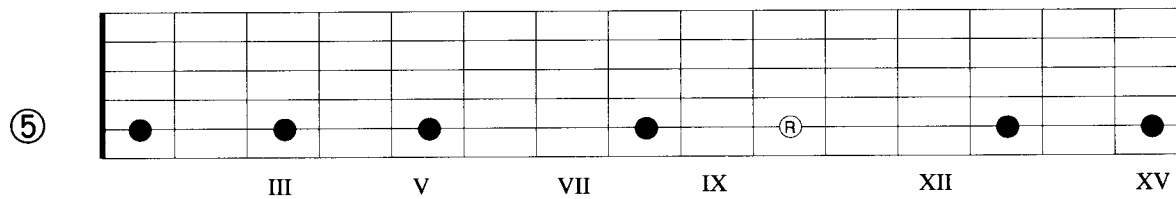
# EXAMPLE 21



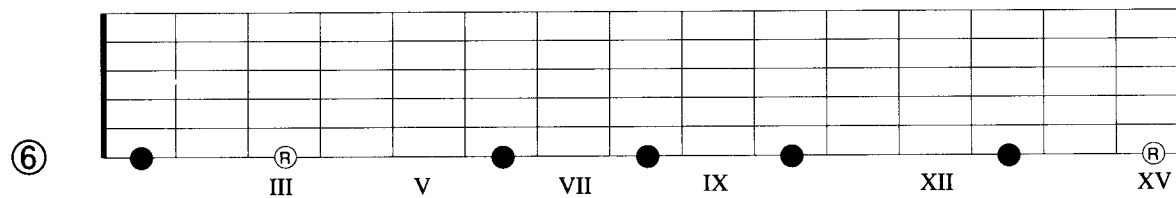
# EXAMPLE 22



# EXAMPLE 23



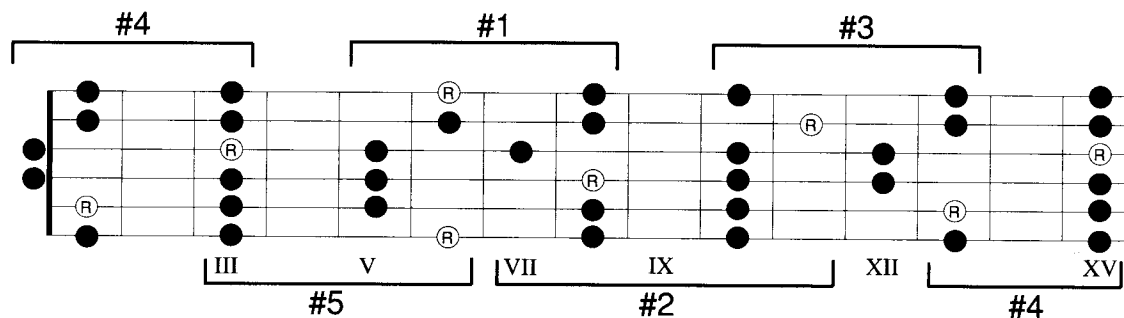
# EXAMPLE 24





## THE ENTIRE MAJOR PENTATONIC SYSTEM

Notice that this is identical to the Entire Minor Pentatonic System on page 17 except for the locations of the roots. As you now know, this is because of the relative relationship between the major and minor pentatonic scales. As with the minor pentatonic, the goal is to be able to tie all of these patterns together in your playing.

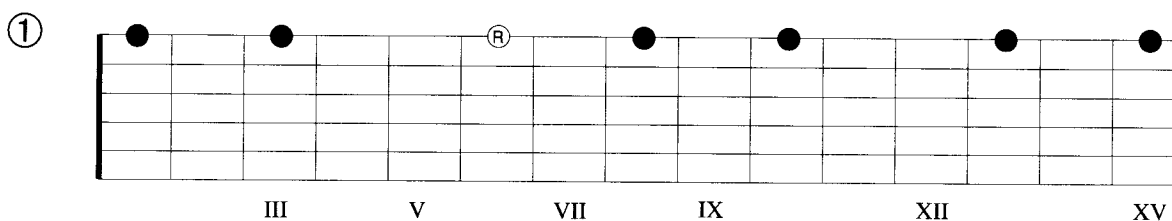


## THE HORIZONTAL APPROACH TO THE MAJOR PENTATONIC

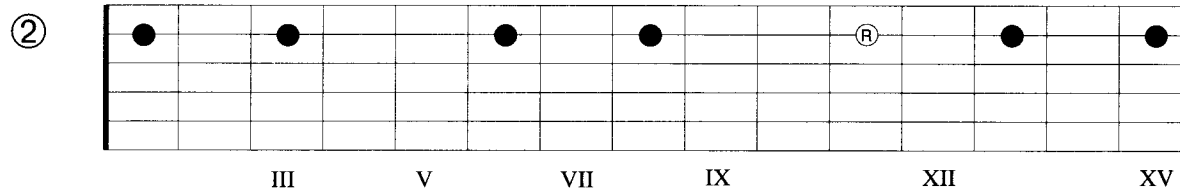
Once again, the next example will be exactly the same as those in Examples 19 through 24 except for the locations of the roots. Here is a place to test your knowledge. Examples 19 through 24 were in the key of G. What will be the major pentatonic key in the next exercises? Remember, we find the relative major key by thinking up three frets. If you play a G and think up three frets, you will find a B<sup>b</sup>. Indeed, B<sup>b</sup> is the root in all the following examples.

### THE B<sup>b</sup> MAJOR PENTATONIC SCALE ON SINGLE STRINGS

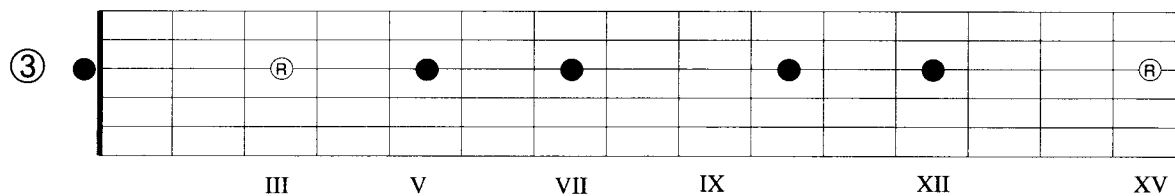
#### EXAMPLE 25



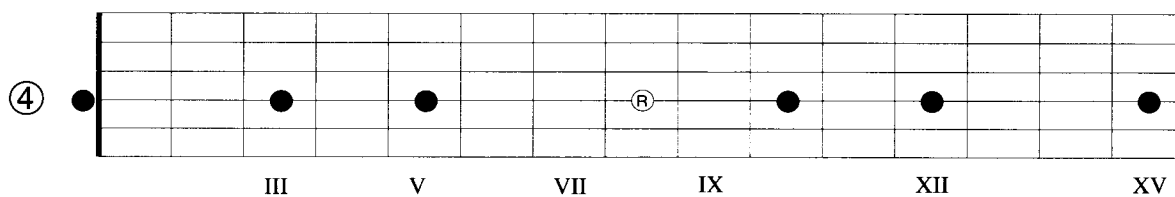
# EXAMPLE 26



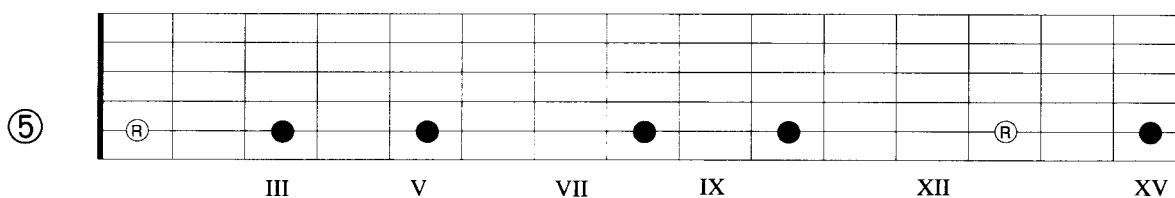
# EXAMPLE 27



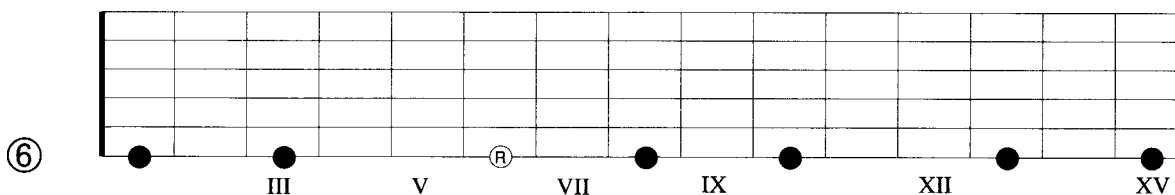
# EXAMPLE 28



# EXAMPLE 29



# EXAMPLE 30



## COMBINING STRING SETS

### MINOR PENTATONIC

#### EXAMPLE 31

Here is an exercise in the key of G minor that combines two adjacent strings and moves up the neck. This will expose you to other ways of playing the scale and plant the seeds of some new ideas for improvising.

8<sup>va</sup>

T 1 3 1 3-6 3 6 3-6 8 6 8-10 8 11 8 11 13 10 13-15 13 15 13-15 18 15 18

A

B

#### EXAMPLE 32

Try this on other string sets.

T 0 3 1 3-6 3 5 3-5 7 6 8-11 8 10 7 10 12 11 13-15 13 15 12-15 17 15 18

A

B

# EXAMPLE 33

Try this same idea skipping strings.

String skipping exercise in 4/4 time, treble clef. The exercise consists of a series of eighth notes with slurs, moving up and down the staff. The fretboard diagram below shows the fingerings for the strings T, A, and B.

String	Fingering
T	1 3-6 3
A	0 3
B	5 3-5 7

## MAJOR PENTATONIC

You can also apply these ideas to the major pentatonic scale.

# EXAMPLE 34

Here is an example in G Major Pentatonic.

String skipping exercise in 4/4 time, treble clef, G Major Pentatonic. The exercise consists of a series of eighth notes with slurs, moving up and down the staff. The fretboard diagram below shows the fingerings for the strings T, A, and B.

String	Fingering
T	0 3
A	0 3-5 3
B	5 3-5 8

# EXAMPLE 35

This will work on other string sets, too.

String skipping exercise in 4/4 time, treble clef, G Major Pentatonic. The exercise consists of a series of eighth notes with slurs, moving up and down the staff. The fretboard diagram below shows the fingerings for the strings T, A, and B.

String	Fingering
T	0 2
A	0 3-5 3
B	4 2-4 7

# EXAMPLE 36

Try this same idea skipping strings.

8va - - - - -

S S S S S S

T 0 3 5 3 5 7 10 7 10 12 15 12 15 19

A 0 2 4 2 4 7 9 7 9 12 14 12 14 16

B

Eric Clapton.  
This legendary  
player put the  
major pentatonic  
to good use in  
songs like  
"Hideaway" (The  
Bluesbreakers)  
and  
"Keep on Growin'"  
(Derek and the  
Dominoes).

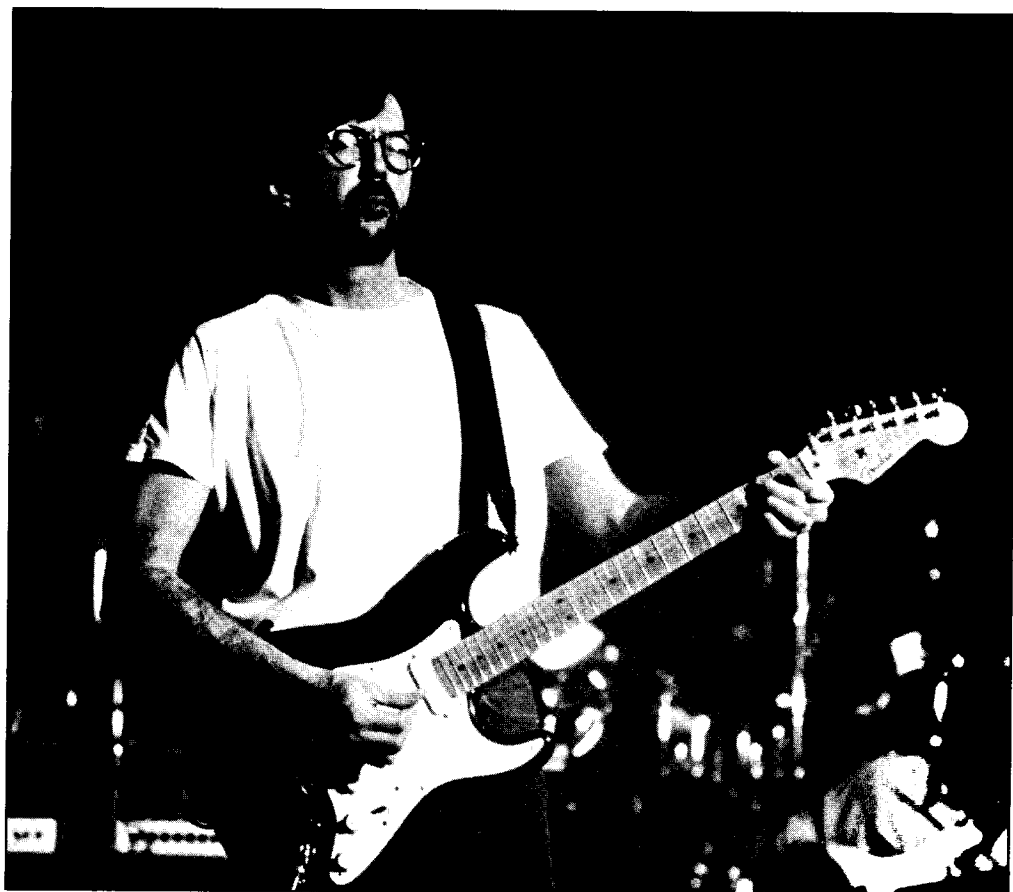


PHOTO: TERRY O'NEILL/ COURTESY OF REPRIS RECORDS

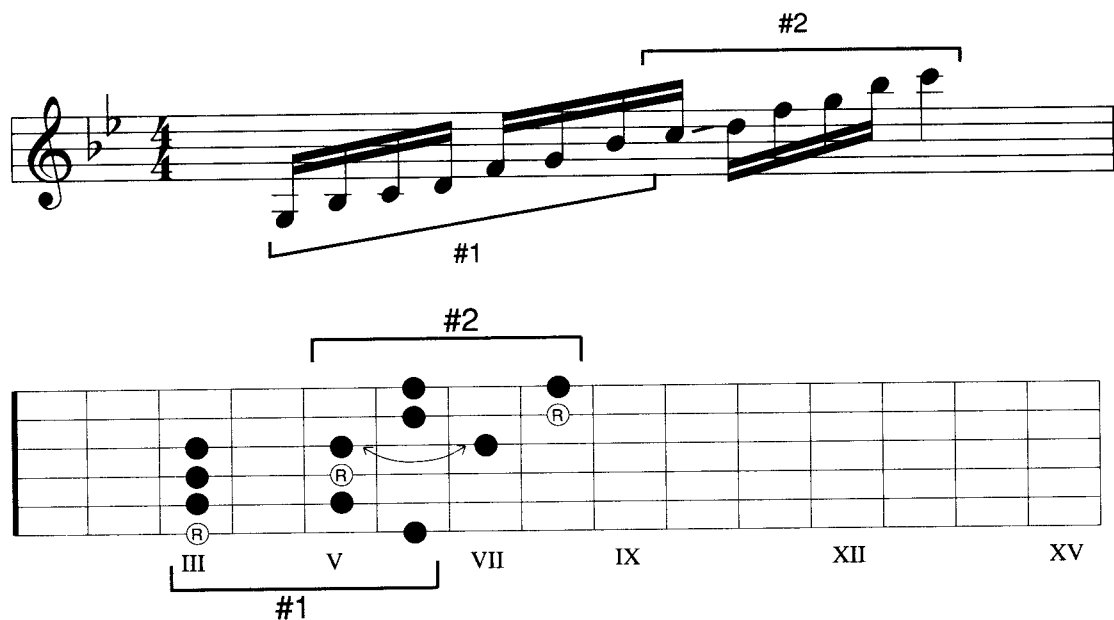
## COMBINING THE PATTERNS

Here is another idea you can try. Start in one pattern and in the middle of it, slide up to the next. This will not only show you how they connect, but will also expand your range when playing the patterns.

### MINOR PENTATONIC

#### Patterns 1 & 2

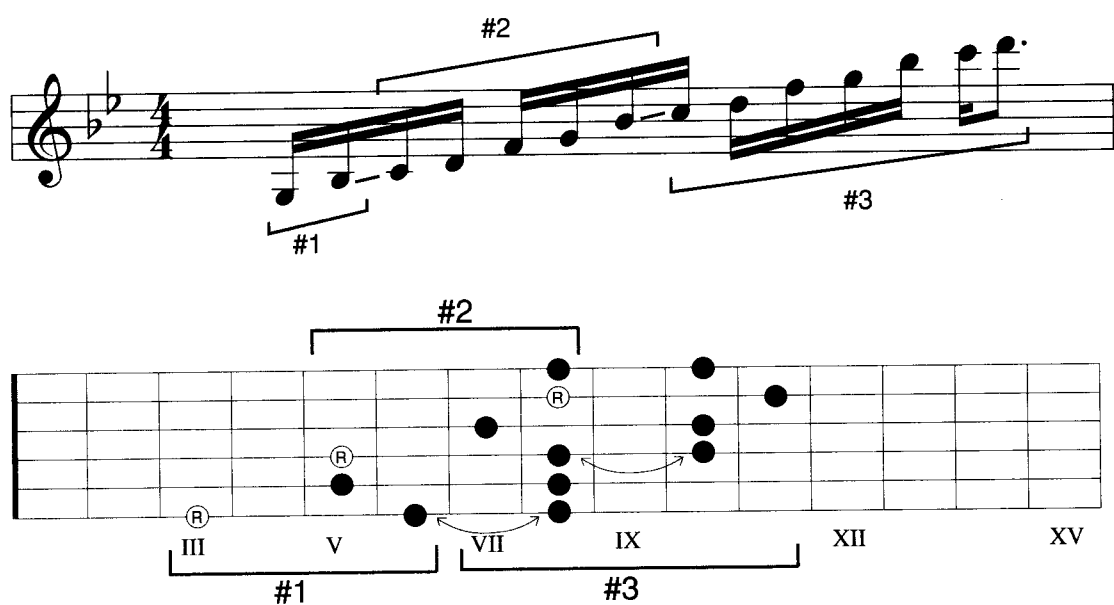
#### EXAMPLE 37



Now take it a step further and try combining three patterns.

#### Patterns 1, 2 & 3

#### EXAMPLE 38



Try combining four patterns.

## Patterns 1, 2, 3 & 4

## EXAMPLE 39

Example 39 shows a musical staff in 4/4 time with a key signature of one flat (Bb). The staff contains a sequence of notes grouped into four patterns labeled #1, #2, #3, and #4. Pattern #1 is a quarter note (Bb3), a quarter note (D4), and a quarter note (Eb4). Pattern #2 is a quarter note (F4), a quarter note (G4), and a quarter note (A4). Pattern #3 is a quarter note (Bb4), a quarter note (C5), and a quarter note (D5). Pattern #4 is a quarter note (Eb5), a quarter note (F5), and a quarter note (G5). Below the staff is a fretboard diagram for the first five frets (III to XV). It shows the positions of the notes for patterns #1, #2, #3, and #4. Pattern #1 is on fret III (Bb), V (D), and VII (Eb). Pattern #2 is on fret VII (F), IX (G), and XI (A). Pattern #3 is on fret XI (Bb), XIII (C), and XV (D). Pattern #4 is on fret XIII (Eb), XV (F), and XVII (G). The diagram also shows the positions of the notes for patterns #1, #2, #3, and #4 on the fretboard.

How about five patterns?

## Patterns 1, 2, 3, 4 & 5

## EXAMPLE 40

Example 40 shows a musical staff in 4/4 time with a key signature of one flat (Bb). The staff contains a sequence of notes grouped into five patterns labeled #1, #2, #3, #4, and #5. Pattern #1 is a quarter note (Bb3), a quarter note (D4), and a quarter note (Eb4). Pattern #2 is a quarter note (F4), a quarter note (G4), and a quarter note (A4). Pattern #3 is a quarter note (Bb4), a quarter note (C5), and a quarter note (D5). Pattern #4 is a quarter note (Eb5), a quarter note (F5), and a quarter note (G5). Pattern #5 is a quarter note (Ab5), a quarter note (Bb5), and a quarter note (C6). Below the staff is a fretboard diagram for the first five frets (III to XV). It shows the positions of the notes for patterns #1, #2, #3, #4, and #5. Pattern #1 is on fret III (Bb), V (D), and VII (Eb). Pattern #2 is on fret VII (F), IX (G), and XI (A). Pattern #3 is on fret XI (Bb), XIII (C), and XV (D). Pattern #4 is on fret XIII (Eb), XV (F), and XVII (G). Pattern #5 is on fret XV (Ab), XVII (Bb), and XIX (C). The diagram also shows the positions of the notes for patterns #1, #2, #3, #4, and #5 on the fretboard.

You can take this as far as you like. Experiment with fingerings and places to slide other than those shown here. Once you have done that, it is important that you practice them in other keys.

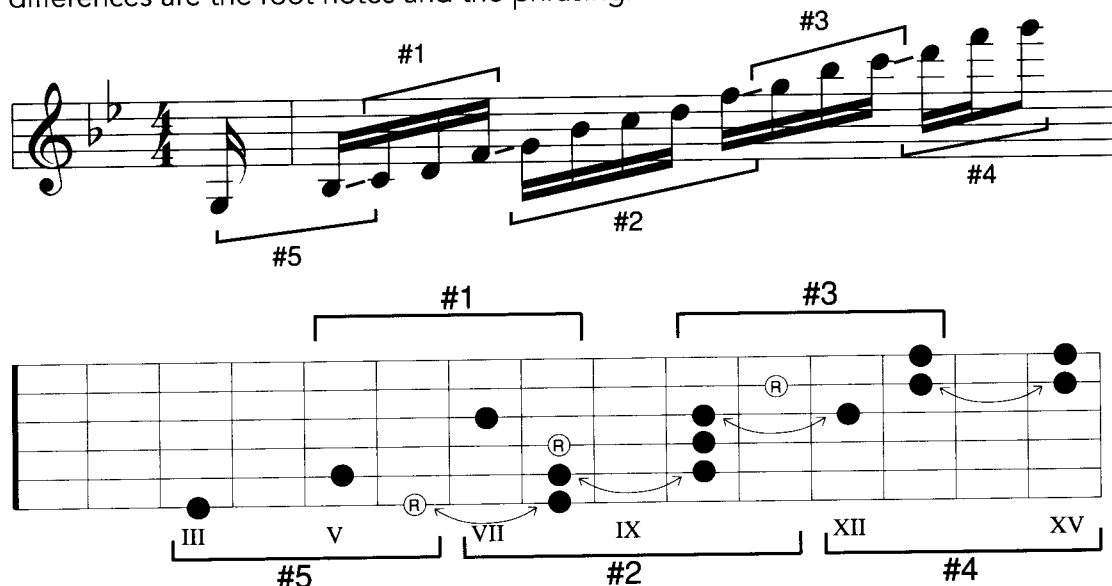
## MAJOR PENTATONIC

You can get a lot more mileage out of your ideas by learning to take a minor pentatonic lick and playing it as if it were from the relative major pentatonic scale.

### Patterns 1, 2, 3, 4 and 5

### EXAMPLE 41

Notice that these are the exact same notes as those in Exercise 40. The only differences are the root notes and the phrasing.



Now, go back and play Exercises 37, 38, and 39 in their relative major keys. Simply alter the phrasing so that B<sup>b</sup> is emphasized instead of G.

Larry Carlton.  
Check out Carlton's  
"Small Town Girl"  
for a good example  
of how the major  
pentatonic scale  
sounds in a  
jazz/pop tune.

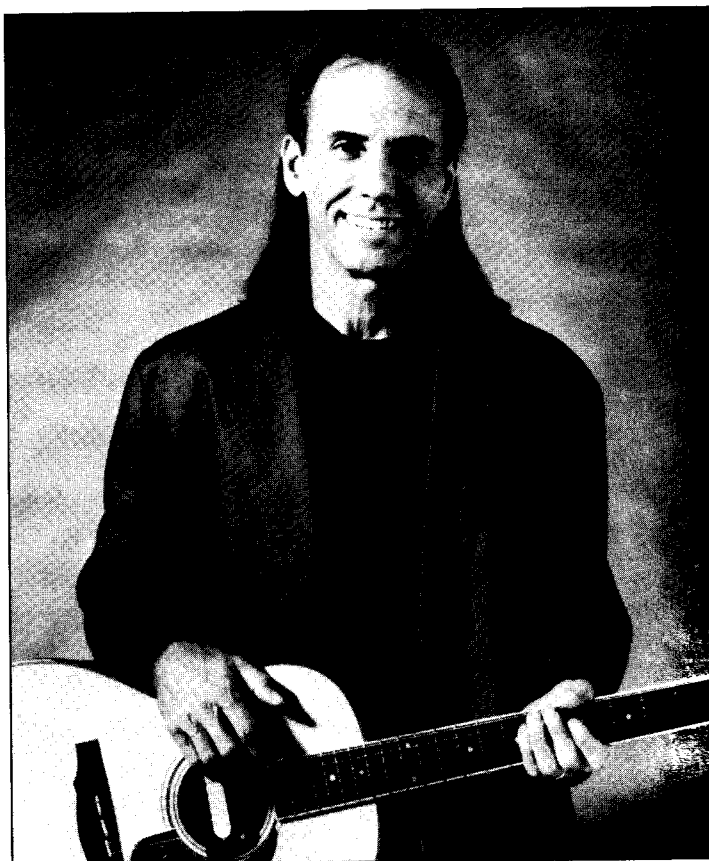


PHOTO COURTESY OF GRP RECORDS



## SEQUENCING

This concept involves repeating a pattern as you ascend or descend through the scale. For instance, play the first three notes of the scale, then go to the second note of the scale and play three notes from there. Go to the third note of the scale and play three notes from there, etc.

### EXAMPLE 42

Tablature notation for Example 42:

T	A	B
		3 6
		3 6 3 5 3 5
		3 5 3 5 3 5 3 5 3 6 3 6

### EXAMPLE 43

Can you see the pattern forming?

Tablature notation for Example 43:

T	A	B
		6 8
		5 8 5 8 5 8
		5 8 5 7 5 7 6 7 6 8 6 8

### EXAMPLE 44

Once you have ascended all the way through a pattern, do the same thing descending. Imagine that you have just played through a sequence of this pattern ascending, and now you are descending.

Tablature notation for Example 44:

T	A	B
		6 3
		6 3 6 3 6 3
		5 3 5 3 5 3 5 3 5 3 6 3 6 3

# EXAMPLE 45

Try sequencing four notes and descending by reading the pattern backwards.

T  
A  
B

3 6 3 5 6 3 5 3

3 5 3 5 5 3 5 3

T  
A  
B

3 5 3 6 5 3 6 3

3 6 3 6

3 6 3 6

# EXAMPLE 46

You can sequence five notes. Again, experiment with a descending sequence of this pattern.

T  
A  
B

3 6 3 5 3 6 3 5

3 5 3 5 3 5 3

3 5 3 5 3 5 3

Example 46 Continued)

The first system of the musical score for 'The Wind' is shown. It consists of a single staff in treble clef with a key signature of one flat (B-flat). The melody is written in a simple, stepwise fashion, starting on a middle C and ending on a G. The notation includes a treble clef, a key signature of one flat, and a series of eighth and quarter notes connected by beams, indicating a continuous melodic line.

### EXAMPLE 47

Try sequencing six notes.

[illegible]

## LICKS WITH SEQUENCES

Here are some fun sample licks that incorporate sequencing. The first two incorporate sequences of fours.

### EXAMPLE 48

Example 48 is a 4-measure lick in 4/4 time. The treble clef staff shows a sequence of eighth notes with a triplet of eighth notes in the first measure. The bass staff shows the fretboard positions for the notes.

### EXAMPLE 49

Example 49 is an 8-measure lick in 4/4 time. The treble clef staff shows a sequence of eighth notes with an 8va marking. The bass staff shows the fretboard positions for the notes.

### EXAMPLE 50

This lick includes sequences of fives.

Example 50 is an 8-measure lick in 4/4 time. The treble clef staff shows a sequence of eighth notes with a slur over the last four measures. The bass staff shows the fretboard positions for the notes.

## EXAMPLE 51

—ere's one that incorporates sequences of sixes.

## INTERVALS

An interval is the distance between two notes. Intervals are measured in half steps. On the guitar, a half step is the distance from one fret to the next adjacent fret. For example, a perfect fourth interval equals five half steps or frets on the guitar.

## EXAMPLE 52

Once you have measured five half steps up from the G to find that a perfect fourth above is a C, you can choose to play the C in a more convenient location on the fifth string. You can measure and re-finger any interval in this manner.

An interesting way to spice up a solo is to play the pentatonic patterns in fourth intervals. You may notice that some intervals deviate from the others. For instance, the interval  $B^b$  to D, which is a major third (four half steps), appears during the exercise in fourths. For it to have been a fourth interval the notes would have had to be  $B^b$  to  $E^b$ . The problem is that there is no  $E^b$  in the G Minor Pentatonic scale. The closest scale tone is D, so we substitute it for the  $E^b$ . This kind of adjustment to stay within the scale is typical.

The following examples all use the G Minor Pentatonic scale, but this concept is good for any key, and for the major pentatonic scale, too.

## Fourth Intervals

### EXAMPLE 53

Example 53 shows the G Minor Pentatonic scale in 4/4 time, played in intervals of a third and a fourth. The scale is written in treble clef. The intervals are marked with brackets and the word "third". The bottom staff shows the corresponding fretboard positions for Tenor (T), Alto (A), and Bass (B) staves, with fingerings indicated by numbers 1-6.

Playing the scales in intervals will expose you to ways of approaching the scale other than playing it straight through. It is intended to open your creative side and unleash the potential that is to be found in this scale. Keep in mind that these are exercises and they do start to sound old if used exclusively. Use them sparingly and they will add interest to your solos.

## Fifth Intervals

### EXAMPLE 54

A fifth equals seven half steps:

G - D, B<sup>b</sup> - F, C - G, etc.

Example 54 shows the G Minor Pentatonic scale in 4/4 time, played in intervals of a fifth and a sixth. The scale is written in treble clef. The intervals are marked with brackets and the words "sixth" and "sixth". The bottom staff shows the corresponding fretboard positions for Tenor (T), Alto (A), and Bass (B) staves, with fingerings indicated by numbers 1-6.

## Seventh Intervals

### EXAMPLE 55

A minor seventh equals ten half steps:

G - F, C - B<sup>b</sup>, D - C, etc.

Fingerings chart for Example 55:

Staff	1	2	3	4	5	6	7	8
T								
A	3	5	3	5	3	5	3	5
B	3	6	3	5	3	5	3	5

## Octaves

### EXAMPLE 56

There are twelve half steps in an octave:

G - G, B - B, and C - C, etc.

Fingerings chart for Example 56:

Staff	1	2	3	4	5	6	7	8
T								
A	5	3	5	3	6	3	5	3
B	3	6	3	5	3	5	3	5

## LICKS WITH INTERVALS

Here are some sample licks with which you can experiment. Remember, use these ideas as springboards to create some licks of your own.

### EXAMPLE 57

Here is an idea that uses fourth intervals.

### EXAMPLE 58

This lick uses intervals of a fifth.

### EXAMPLE 59

Seventh intervals are highlighted in this example.

[illegible]



# BENDING

This last section is very important. Many beginning players randomly bend any note they happen to be playing. This is okay for some notes, but unless they get lucky, they always play a percentage of wrong or "out-of-tune" notes. Let's eliminate the guessing game.



## MINOR PENTATONIC

As you now know, the degrees of the minor pentatonic scale are 1,  $\flat 3$ , 4, 5, and  $\flat 7$ . You can bend from any note in the scale to any other note in the scale. You can also bend to and from the 2 and 6, even though they are not in the minor pentatonic scale.

## HALF STEP BENDS

Like anything else, there are certain notes that sound better than others when bent. The minor pentatonic tends to take on a bluesy quality when its notes are bent. For example, you can make these half step bends:

2 to  $\flat 3$

4 to  $\flat 5^*$

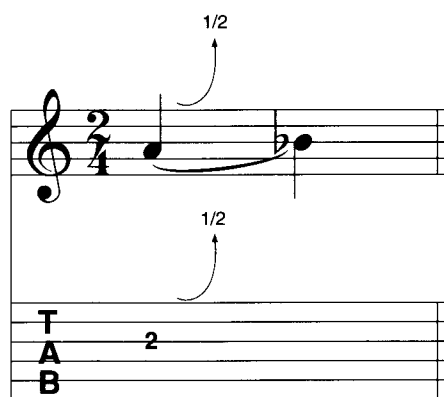
6 to  $\flat 7$

\* The occasional use of the  $\flat 5$  degree lends a particularly bluesy quality to the minor pentatonic scale.

Here are some half step bends in the Key of G to practice.

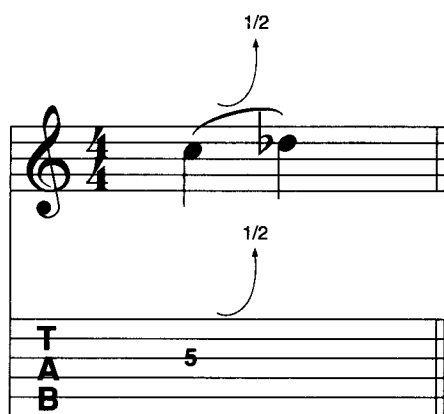
2 to  $\flat 3$

EXAMPLE 60



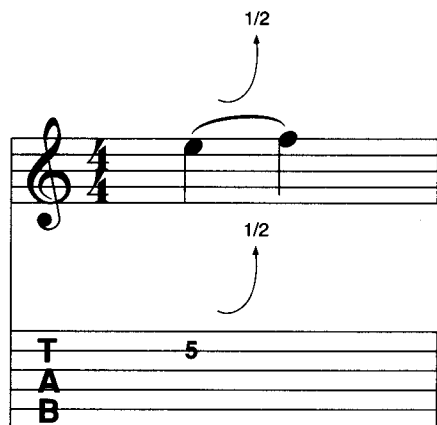
# 4 to $\flat 5$ (a blues effect)

## EXAMPLE 61



# 6 to $\flat 7$

## EXAMPLE 62



## WHOLE STEP BENDS

There is an emotional quality that you can draw from the guitar when you bend that you cannot possibly get by simply playing the notes in the standard fashion. Think about this when you make these whole step bends:

1 to 2

$\flat 3$  to 4

4 to 5

5 to 6

$\flat 7$  to the Root

Practice whole step bends in the key of G.

# 1 to 2

## EXAMPLE 63



# $\flat 3$ to 4

## EXAMPLE 64



4 to 5

## EXAMPLE 65



5 to 6

## EXAMPLE 66



## MAJOR PENTATONIC

This scale sounds anything but bluesy, even when its notes are bent. Still, you can pull more emotion out of the scale by bending the notes where you would not be able to on most other instruments. Some of my favorite bends in this scale go from 2 to 3, 5 to 6, and, if executed properly, 1 to 2 can sound nice.

Here are some bends to practice for the major pentatonic scale.

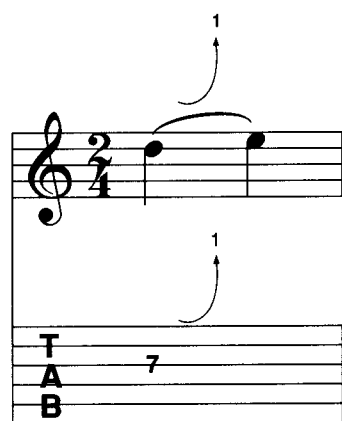
2 to 3

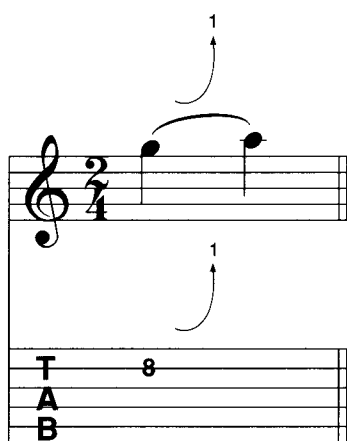
## EXAMPLE 67



5 to 6

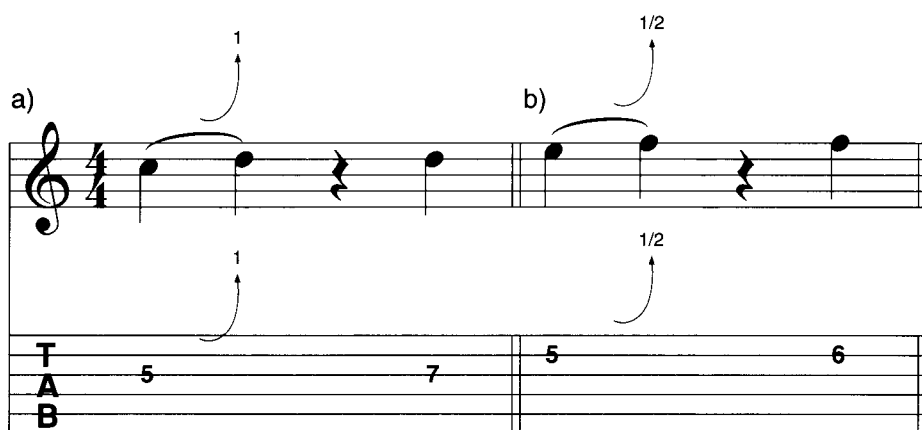
## EXAMPLE 68





### BENDING IN TUNE

It is important to bend in tune. You can check yourself by playing the actual pitch to which you are bending. Make sure the actual pitch and the bent note sound the same.



## REVERSE BENDS

There are different types of bends. Playing a note and bending it to another with a slur (not picking the second note) is the most common type.

You can also bend a note before you play it, and then bring the string down to its natural position after picking. This is often called a reverse bend, or a pre-bend.

### EXAMPLE 71

The example shows two staves of music in 4/4 time. The top staff is in treble clef and the bottom staff is in bass clef. Both staves show a sequence of notes with arrows indicating bends. In the treble staff, the first measure has a quarter note on G4 with an upward arrow labeled '1/2' and a slur to a dotted quarter note on A4. The second measure has a quarter note on G4 with an upward arrow labeled '1' and a slur to a dotted quarter note on A4. In the bass staff, the first measure has a quarter note on G2 with an upward arrow labeled '1/2' and a slur to a dotted quarter note on A2. The second measure has a quarter note on G2 with an upward arrow labeled '1' and a slur to a dotted quarter note on A2.

B. B. King.  
He's got the  
blues, so he's got  
the "bends," too!  
Nearly all of  
B. B. King's  
playing is based  
on pentatonic  
scales.



PHOTO: COURTESY OF MCA

# SAMPLE SOLOS

I have included solos that incorporate many of the concepts discussed in this book so that you can see them used in an actual musical context.

The chord progression in this first solo is a standard 12 bar blues progression in the key of G.

## MINOR PENTATONIC SAMPLE SOLO

1 2 G7 3 C7

T	8	6	8	6	S	3	6	8	6	8	10	13	10
A	7	5	3	5	3	3	3	5	7	5	7	10	12
B	5	3	3	3	3	5	3	5	7	5	7	10	12

4 G7 5 G7

T	11	13	10	13	15	13	12	15	10	13	12	15	S
A	11	13	10	13	15	13	12	15	10	13	12	15	12
B	11	13	10	13	15	13	12	15	10	13	12	15	12

6 C7 7 C7

T	11	8	11	10	8	11	8	11	8	10	8	11	8
A	11	8	11	10	8	11	8	11	8	10	8	11	8
B	11	8	11	10	8	11	8	11	8	10	8	11	8

Measure 8: G7 chord. Treble staff: quarter rest, eighth rest, eighth note G4, quarter note A4, eighth note B4, quarter note C5. Bass staff: T=5, A=3, B=4. Fingering: 1/2 bend on G, 3 on A, 3 on B.

Measure 9: G7 chord. Treble staff: quarter note D5, quarter note E5, quarter note F5, quarter note G5. Bass staff: T=8, A=(8), B=5. Fingering: 1 on D, 3 on E, 3 on F, 3 on G.

Measure 10: D7 chord. Treble staff: quarter note A4, quarter note B4, quarter note C5, quarter note D5. Bass staff: T=5, A=(5), B=5. Fingering: 1 on A, 3 on B, 3 on C, 3 on D.

Measure 11: D7 chord. Treble staff: quarter note E5, quarter note F5, quarter note G5, quarter note A5. Bass staff: T=4, A=3, B=5. Fingering: 1/2 bend on E, 3 on F, 3 on G, 3 on A.

Measure 12: D7 chord. Treble staff: quarter note B5, quarter note A5, quarter note G5, quarter note F5. Bass staff: T=5, A=5, B=3. Fingering: 1 on B, 1 on A, 1 on G, 1 on F.

Measure 13: D7 chord. Treble staff: quarter note E5, quarter note F5, quarter note G5, quarter note A5. Bass staff: T=6, A=6, B=3. Fingering: 1 on E, 1 on F, 1 on G, 1 on A.

## ANALYSIS

The first measure is a pick-up lick that leads into the progression, and incorporates the concept of connecting patterns. This example begins in Pattern #2 and slides down to Pattern #1.

Measure 3 incorporates a string skipping concept that moves horizontally up the neck.

In Measure 4, I have sequenced some of the descending seventh intervals.

Measure 6 begins with a whole step bend and continues in a descending sequence of a four note pattern.

Measure 7 contains a string of descending and ascending fourth intervals.

Measure 8 demonstrates a half step bend and return.

Measure 10 has a whole step bend on the second string that is held out while you play a note (A) on the first string. The bend is then released in the next beat.

Measure 11 also demonstrates a half step bend. At the end of the measure, you will find a grace note hammered-on from the third to fifth frets of the first string. Grace notes are played very quickly right before the beat.

Measure 12 has two whole step bends and a pull-off at the end.

## MAJOR PENTATONIC SAMPLE SOLO

5 G 6 C 8<sup>va</sup>

T  
A  
B

S

7 10 12 9 12 12 9 9 7 9 7 9 7 10 8 10 12 15 12 15 17 20

9 12 9 12 12 9 9 7 9 7 9 9 7 9 12 14 12 14 17



The image shows two measures of guitar music. Measure 7 is in D major and contains a descending sequence of four notes. Measure 8 is in G major and features a whole step bend with a delayed return. The notation includes a treble clef, a key signature of one sharp (F#), and a common time signature. The fret numbers for the Treble (T), Alto (A), and Bass (B) staves are as follows:

Measure	Treble (T)	Alto (A)	Bass (B)
7	17, 16, 19, 17, 19, 16	19, 16, 19, 16	19, 17, 14, 12, 14, 12, 16
8	14, 15, 15, (14), 12, 15	15, 14	

## ANALYSIS

Measure 1 demonstrates descending four note sequences.

Measure 2 begins by combining C Major Pentatonic Patterns #1 and #5 on the first beat and then moves into fourth intervals.

Measure 3 combines D Major Pentatonic Pattern #5 with Pattern #1.

Measure 4 incorporates whole step bends from the 2nd to 3rd scale degrees of the G Major Pentatonic scale.

Measure 5, still using a G Major Pentatonic scale, combines Patterns #3 and #4.

Measure 6 demonstrates string skipping.

Measure 7 contains some descending seventh intervals.

Measure 8 has a whole step bend with a delayed return.

I hope that seeing these concepts used in an actual musical situation will help you formulate some ideas to use creatively in your own solos. Better yet, I hope that these ideas inspire you to come up with new concepts. Keep your eye out for other books about improvising from *The National Guitar Workshop* and *Alfred*, such as "Introducing the Dorian Mode" and "Introducing the Mixolydian Mode," both by Peter Einhorn.

# HOW TO READ MUSIC

## PITCH

Learning to read music will help you to get the most out of your National Guitar Workshop and Alfred instructional books. It will make you a better musician, too, because you will be able to communicate more easily with other musicians. What follows is a discussion of music reading basics. Remember that practice makes perfect! The more you practice reading, the easier it will become.

### Staff

A staff containing five lines and four spaces is used in the writing of music. Notes are alternately written on the lines and spaces in alphabetical order.

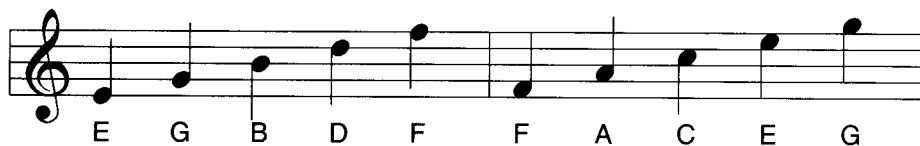


### Clef

The clef indicates which notes coincide with a particular line or space. Different clefs are used for different instruments. Guitar music is written in G clef. The inside curl of the G clef encircles the line which will be called "G". When the G clef is placed on the second line, as in guitar music, it is called the treble clef.

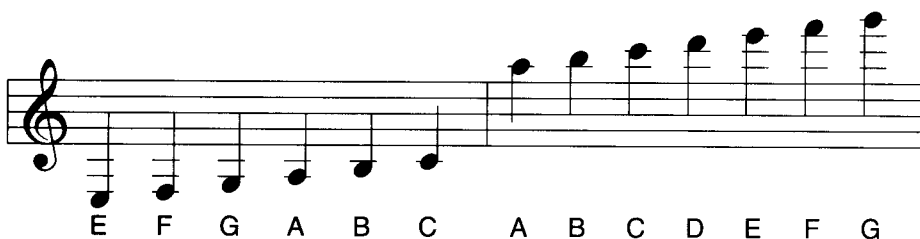


Using the G clef the notes are as follows:\*



### Ledger Lines

These are lines that are used to indicate pitch above and below the staff.

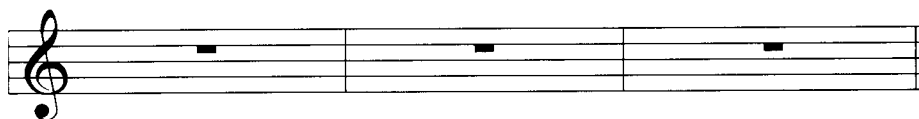


\* In standard notation the guitar sounds an octave lower than written.

## TIME

### The Measure

The staff is divided by vertical lines called **bar lines**. The space between two bar lines is a measure. Each measure (bar) is an equal unit of time.



Double bar lines (≡) mark the end of a piece.

### Time Signature

Every piece of music has numbers at the beginning that tell us how to count the time.

**Examples:**

<b>4</b>	<b>3</b>	<b>6</b>
<b>4</b>	<b>4</b>	<b>8</b>

The top number represents the number of beats or counts per measure. The bottom number represents the type of note receiving one count.

Example: 4 = quarter note    8 = eighth note

Sometimes a **C** is written in place of 4/4 time. This is called **common time**.

### Note values in 4/4 time:

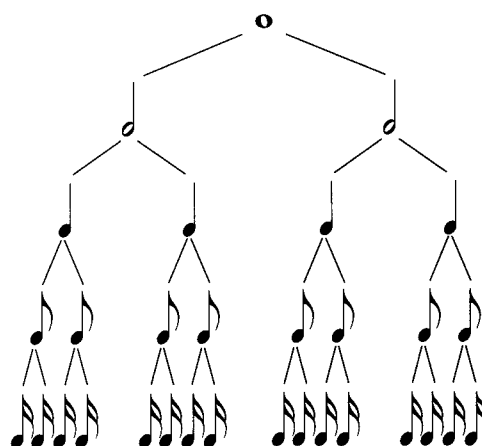
A whole note     = four beats

A half note     = two beats

A quarter note     = one beat

An eighth note     = 1/2 beat

A sixteenth note     = 1/4 beat



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# A GUIDE TO NATIONAL GUITAR WORKSHOP TABLATURE

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Tablature, when combined with standard music notation, provides the most complete system for communicating the many possibilities in guitar playing.

In our TAB system, as in most, **rhythm** is not notated. For that, you will have to refer to the standard notation. Six lines are used to indicate the six strings of the guitar. The **top line** is the high E string (the string closest to the floor) and the **bottom line** is the low E string. **Numbers** are placed on the strings to indicate **frets**. If there is an "0", play that string open.

**Fingerings** are often included in TAB. You will find them just under the bottom line. A "1" indicates your left first or index finger. A "4" indicates your left fourth or pinky finger.

In the following example, the first note is played with the first finger on the first fret. The next note is played with the second finger on the second fret, then third finger plays the third fret, and the fourth finger plays the fourth fret.

The example shows a musical staff in 4/4 time with a treble clef. It contains four quarter notes: F2 (first fret), G2 (second fret), A2 (third fret), and B2 (fourth fret). Below the staff is a six-line guitar tablature. The notes are represented by numbers 1, 2, 3, and 4 on the top line. Below the bottom line of the tablature are the fingerings 1, 2, 3, and 4.

A **tie** in the music is indicated in TAB by placing the tied note in parentheses.

The example shows a musical staff in 4/4 time with a treble clef. It contains four quarter notes: F2 (first fret), G2 (second fret), A2 (third fret), and B2 (fourth fret). The notes are tied in pairs: F2 and G2 are tied, and A2 and B2 are tied. Below the staff is a six-line guitar tablature. The notes are represented by numbers 10, (10), 12, and (12) on the top line. Below the bottom line of the tablature are the fingerings 1 and 3.

**Hammer-ons and pull-offs** are indicated with slur marks, just like in standard notation. Our TAB also includes an "H" for hammer-ons and a "P" for pull-offs. These are found just above the TAB.

The example shows a musical staff in 4/4 time with a treble clef and a key signature of one sharp (F#). The melody consists of eighth notes with slurs indicating hammer-ons and pull-offs. The corresponding guitar tablature has three staves labeled T, A, and B. The T staff shows fret numbers 8 and 5, with 'P' (pull-off) above the 8-5 pairs. The A and B staves are empty. The second measure shows a sequence of 5, 8, 5, 8, 5, 8, 5, 8, with 'H' (hammer-on) above the 5-8 pairs.

Upward **bends** are marked with upward **arrows**. Downward arrows are used to show a bend being released. A number above the arrow indicates how far to bend (1 = a whole step, 1/2 = a half step, etc.). Remember that the TAB will show the fret number on which your finger should be placed. The standard notation corresponds with the fret shown in the TAB. In the following example you will also find a **tap** (T) and a **slide** (S and  $\diagup$ ). Also, notice that if more than one note are played with one bend, they appear in parentheses in the TAB. Some notes are actually represented by the arrows themselves, as in the second note of the triplet in this example.

The example shows a musical staff in 4/4 time with a treble clef and a key signature of one sharp (F#). The melody includes a triplet of eighth notes, a tap, and a slide. The guitar tablature has three staves labeled T, A, and B. The T staff shows fret numbers 12, 17, 12, (12), 10, and 17. The A and B staves are empty. The T staff also includes a 'T' (tap) above the 17th fret and an 'S' (slide) above the 10th fret. Arrows indicate bends and releases. The fret numbers 3, 4, 3, and 1 are written below the T staff.

In the following example you will find several more symbols. The sign for **vibrato** (~~~~~), and the signs for **picking down** (▣) and the sign for **picking up** (V).

The example shows a musical staff in 4/4 time with a treble clef and a key signature of one sharp (F#). The melody includes a triplet of eighth notes, a vibrato, and a series of eighth notes. The guitar tablature has three staves labeled T, A, and B. The T staff shows fret numbers 5, 5, 5, 5, 5, 7, 8, 8, 8, 8, 8. The A and B staves are empty. The T staff also includes a 'V' (picking up) above the 5th fret and a '▣' (picking down) above the 7th fret. Arrows indicate bends and releases. The fret numbers 8, 7, 5, 5, 5, 7, 8, 8, 8, 8, 8 are written below the T staff.

## INTRODUCING THE PENTATONIC SCALES

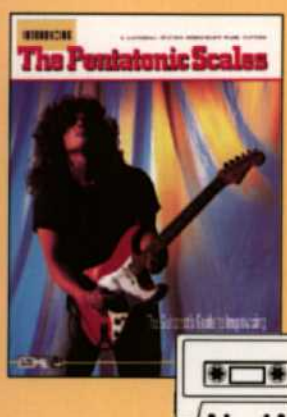
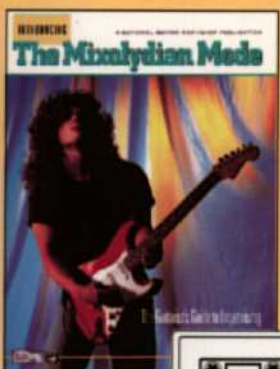
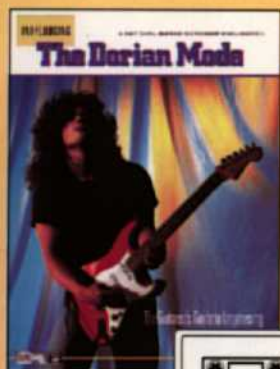
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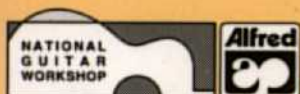
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